

HELP YOURSELF TO A

HEALTHY HOME

If you are like most people, you want to take good care of your family. You try to eat healthy foods. You take your children to the doctor for their regular checkups. You try your best to protect your family from accidents and illness. You want to live in a safe neighborhood and home. *But is your home a safe and healthy place to be?*

Ask yourself:

- ? Is your tap water safe to drink?
- ? Are there chemicals in your household products that could make you sick?
- ? Do your children have breathing problems, like asthma?
- ? Are poisons kept where your children can reach them?
- ? Is there lead in your home?

It is up to you to make sure your home is safe and healthy! There are many things you can do and there are people who can help. This booklet will make it easy for you to ask the right questions and will show you steps you can take to protect your children's health.

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WHY BE CONCERNED?

Some of the most serious health problems for your children may start in your home. This booklet explains some of these health concerns and tells what you can do about them.

**Most people
spend over
90% of their
time indoors**

AIR

Is the air in your home healthy?

Allergies and asthma are health problems that may be caused or made worse by things in the air you breathe. Since you and your children spend a lot of time at home, the air inside needs to be clean. Does someone smoke in your house? Do you have pets? Is your basement damp? These may cause, or add to, breathing problems.

Too much dampness can cause mold to grow. Some mold is very harmful and some can make allergies or asthma

worse. There are household products and chemicals that are dangerous to breathe (☆ see pages 16-19 to learn more about household products). Stoves and heaters may produce harmful gases in your home if they are not used properly. It is important to let fresh air in and bad air out.

☆ Do you want to know if your home has healthy air? See pages 4-7.

**The number of
children with asthma
has doubled in the
past 10 years. 1 in 15
children under 18
years of age have
asthma**

LEAD

Can your children be poisoned by lead in your home?

Until recently paint and water pipes often had a metal in them called lead. Lead was also in gasoline and got into the air and soil from car exhaust. It's not used in these ways any more, but there is still plenty of lead around.

Lead can poison your children by getting into their mouths or breathing it in from the air. If a pregnant woman gets lead in her body, it can harm the unborn baby.

**1 in 20
American
children have too
much lead in
their bodies**

Lead poisoning is a serious problem for young children. It can cause problems with learning, growth and behavior that can last a whole lifetime. Even small amounts of lead can be harmful.

Most problems with lead come from old paint. You are most likely to have lead in your home if you live in an older house or apartment. You can't always tell if you have a lead problem just by looking. Lead can be a fine dust from the paint in your house or in dirt tracked inside. Lead can also be in the soil and air around your home or in your drinking water.

☆ Turn to page 8 to see about lead poisoning in your home.

WATER

Is your drinking water safe?

Do you know where your drinking water comes from? If it comes from your own well, you need to make sure it is safe to drink. Have your water tested every year to make sure it does not have chemicals in it that can make your family sick. There are things you can do to take care of your well to keep the water clean. See page 14 for ideas.

**95% of people
living in rural
areas use private
wells for their
drinking water**

You may get your drinking water from a water company. Water companies always test the water before they pipe it to your house to make sure it is safe. You can ask them to give you a report on what they found in the tests. Even if it is okay at the water company, the water can still become unsafe after it gets in your home.

☆ Look at pages 12-15 to see if your water is safe to drink.

PRODUCTS

Do you have harmful products in your home?

Some products in your home can harm your family's health if they are not used properly. Common chemicals like bleach, rat poison, paint strippers, and drain cleaners can be dangerous. Children can be poisoned if they get into harmful products.

Thousands of children die each year from exposure to chemicals stored and used improperly in the home

Even very small amounts of some chemicals can cause health problems if you touch them or breathe them in. Remember: if you spray or pump something, it goes right into the air. When you and your family breathe, those chemicals can enter your bodies.

☆ See pages 16–19 to learn more about how to use, store and dispose of household products

Almost one-half of houses with a child under 5 had pesticides stored within reach of children

PESTICIDES

Do you use pesticides in your home?

Almost every household uses pesticides. But most people do not understand that pesticides can be a danger. Bug spray, flea powder, rat poison, and garden weed killer are all types of pesticides. These products have chemicals that kill pests. That also means they can harm you and your family. If they are not used safely, some pesticides may cause serious health problems —

poisoning, birth defects, nerve damage, and even cancer.

Your children can come into contact with pesticides many ways. You can take simple steps to protect your children's health.

☆ Read pages 20–24 to see if you are using pesticides safely.



Why focus on children?

Of course, a healthy home is important for adults, too. Making your home safe and healthy for children protects everyone. And, there are special reasons to think about children:

- Children's bodies are still growing so their organs are more likely to be harmed. If children get sick, getting well may be harder. Their immune systems, which fight illness, are still developing.

• For their size, children eat more food, drink more water and breathe more air than adults. When they get lead in their bodies or breathe in harmful gases, they get a bigger dose than adults would.

• Children play and crawl on the ground. This means they are closer to things that might cause health problems, like dust and some chemicals. And babies and young children put most everything in their mouths —things that might have chemicals or lead dust on them.

Children depend on adults to make their homes safe!

HOW TO USE THIS BOOK

This booklet asks you simple questions about your home and your daily activities. By answering these questions, you can find out if your home is healthy, or if you need to do things differently.

There are five sections in this booklet. Every section gives you some information about one topic, asks you questions about it, and shows you simple steps to protect your children's health. At the end of each section is a list of places you can call to get help.

It's easy, but it is up to you — HELP YOURSELF TO A HEALTHY HOME!

INDOOR AIR QUALITY

SHOULD YOU BE CONCERNED?

Most people spend at least half their lives inside their homes. Indoor air can be more harmful to your family's health than outdoor air. Is the air in your home safe to breathe?

It is not always easy to tell if you have poor air quality. You can smell paint fumes and see smoke, but you may not be able to see or smell other dangers, like radon gas. This section will help you ask the right questions to find out if the air inside your home is safe and healthy.

For their size, children breathe in 50% - 100% more air than adults

Asthma and allergies may be caused or made worse by things in the air you breathe.

Pets, tobacco smoke, cockroaches, and damp basements can all pollute the air and make asthma worse.

Your family can be poisoned from toxic gases. Carbon monoxide is a deadly gas you can't smell or see. It comes from combustion appliances, like gas heaters, furnaces, stoves and dryers. When they are hooked up wrong or not maintained, carbon monoxide escapes and you can breathe it. Car exhaust also has carbon monoxide.

Radon is another gas that can get into some homes from the ground underneath it. Different parts of the country have different levels of radon. Radon, a radioactive gas, has been linked to cancer.

Many products used to build and furnish your home can make indoor air unhealthy. Harmful chemicals can be in new carpets and in furniture made of particle board. These chemicals can cause headaches, burning eyes, sore throat, dizziness, or tiredness in some people. Old paint may have lead in it. Lead is a serious health risk

Children in moderate climates spend about 90% of their time indoors



Combustion appliances are one source of possible air pollution

for children. See page 8 for more information on lead. Hobbies and projects that involve sanding, painting, and welding may also make indoor air harmful. Some household products, especially solvents, can be dangerous. See page 16 for more information on household products.

Mold and mildew grow in damp places—basements, bathrooms, kitchens, or anywhere that water is trapped. Some mold is toxic and some can make allergies or asthma worse.

Dust may contain chemicals, dust mites (microscopic pests), mold, lead, and other things that cause health problems. Smoke from wood stoves and fireplaces may contain harmful particles. Regular housekeeping can reduce dust and protect your family's health.

There are simple, but important steps you can take to find out what is causing poor air quality. The questions on the next page can help you find problems. Page 6 will give you ideas of what to do. Remember, reducing health risks to your family may require taking several steps.

YOUR FAMILY'S HEALTH

- Does anyone in your family have asthma or allergies?
- Does a family member notice burning eyes, coughing, or sneezing that happens most often while at home?
- Does anyone in your home have chronic bronchitis?
- Does anyone smoke inside your home?

HOUSE MATERIALS

- Do you have furniture made of particle board? Particle board is a wood product made from wood chips or sawdust glued together.
- Do you store fuel, solvents, or paints in your living space?
- Do you have new carpet in your home?

MOISTURE CONTROL

- Are there leaks, drips or standing water in or around your house?
- Do you have downspouts and gutters that move rain water away from the house?
- Has your house been flooded recently?
- Is there visible mildew or mold on surfaces?
- Do you use humidifiers?
- Do you shower, bathe or cook without using a fan that sends air outside?
- Do basement floor drains ever get clogged and hold water?
- Are clothes dryers vented to the outside?

HOUSEHOLD PRODUCTS

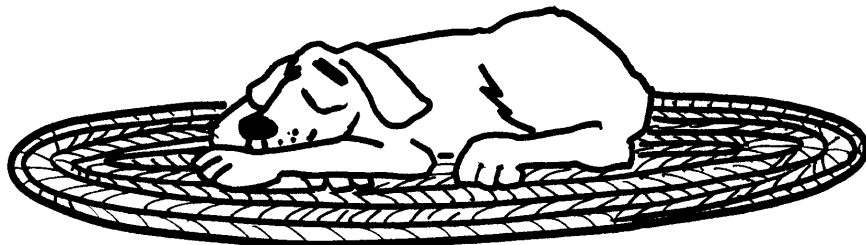
- Do you use hazardous household products safely? See page 16 for more information on safe use.
- Do you know how to properly store and dispose of household products? See page 18 for tips on safe storage and disposal of hazardous products.

COMBUSTION APPLIANCES

- Do you use space heaters that burn kerosene, propane or natural gas, or a wood stove or fireplace, in a closed room without fresh air?
- Has it been more than one year since you had your furnace, flues, and chimneys inspected and cleaned?
- Do you ever let your car run inside a garage attached to the house?

DUST CONTROL

- Does your house have carpet that is not cleaned well or not cleaned often?
- Do you have carpeting, stuffed toys, or fleecy materials in bedrooms?
- Do you have pets inside?

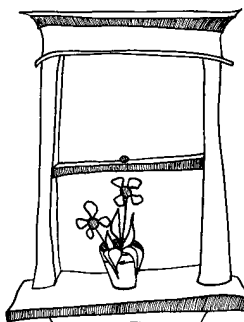


RADON

- Have you ever tested your home for radon?
- Do any of your neighbors have problems with radon gas?

VENTILATION

- Does your home's air ever smell musty, damp, smoky, or like chemicals?
- Do your windows fog up in the winter?
- Do cooking odors linger in your home?
- Does your home seem stuffy or stale?
- Do you have exhaust fans in your bathrooms and kitchen?



**DON'T SMOKE INSIDE THE HOUSE**

- ☐ Smoke outside and away from children.

PAY ATTENTION TO HOUSEKEEPING

- ☐ Use a vacuum cleaner with a special filter. Vacuums with a HEPA filter reduce air quality problems. You may be able to borrow one. Call your local health department.
- ☐ Clean carpets often.
- ☐ Clean hard floors with a damp mop, and wipe window sills with a damp cloth often.
- ☐ Clean up crumbs and spills in the kitchen right away.
- ☐ Know how to safely use, store and dispose of hazardous household products. See pages 16–19 for more information.

**CHECK COMBUSTION APPLIANCES**

- ☐ Check all combustion appliances to make sure they vent to the outdoors. Make sure your gas appliances, furnace and wood burning stove all have yearly checkups.

TEST YOUR HOME FOR RADON

- ☐ Test your home for radon. You can buy low-cost test kits at hardware stores. Or call your local health department.

GETTING NEW CARPET

- ☐ Ask the sales person to unroll your carpet and leave it to air out in a well-ventilated area for at least one day.
- ☐ Put in carpet in a season when you can open windows while it is installed and for several days after.
- ☐ Be sure to vacuum the old carpet well before you remove it to reduce dust.

TIPS
HELP WITH ALLERGIES

- ✓ Keep the house clean.
- ✓ Remove pets, or at least keep them out of bedrooms.
- ✓ Use washable covers for mattresses and pillows.
- ✓ Wash sheets and other bedding once a week with hot water to kill dust mites.
- ✓ Reduce the amount of carpets, upholstered furniture, and things that collect dust.
- ✓ Reduce moisture. See the tips on the next page.

TIPS REDUCING MOLD AND MILDEW

- ✓ Don't let water stand in basements, drip pans of refrigerators, or air conditioners.
- ✓ Fix leaks right away.
- ✓ Make sure rainwater drains away from your house.
- ✓ Use fans that vent air to the outside when bathing, showering, or cooking.
- ✓ Use dehumidifiers and/or air conditioners to remove excess moisture in warm, humid weather.
- ✓ If you use humidifiers, clean them often to keep mold from growing.
- ✓ Limit houseplants.



AIR

WHEN IN DOUBT, CHECK IT OUT

- Indoor Air Quality Information Hotline
(800) 438-4318
Monday-Friday, 9:00am–5:00pm EST
<http://www.epa.gov/iaq>
- Clean Air Council, (215) 567-4004
- American Lung Association, Contact your local organization or call (800) LUNG-USA toll-free
- Carpet and Rug Institute, Indoor Air Quality Testing Program (800) 882-8846 toll-free
- Asthma and Allergy Foundation of America
(202) 466-7643
- Consumer Products Safety Commission
(800)638-2772
- Centers for Disease Control and Prevention (CDC) (800) 311-3435
- Healthy Indoor Air for America's Homes
(406) 994-3451
<http://www.montana.edu/wwwcxair/>
- For more information on indoor air quality, see *Home*A*Syst*. The *Home*A*Syst* handbook gives more details about this and other healthy home topics. (608) 262-0024
<http://www.uwex.edu/homeasyst>



NOTES



This chapter was adapted from "Indoor Air Quality: Reducing Health Risks and Improving the Air You Breathe," by Kathleen Parrott, Virginia Polytechnic Institute and State University. In *Home*A*Syst, An Environmental Risk-Assessment Guide for the Home*, ©1997 Regents of the University of Wisconsin System. All rights reserved.

SHOULD YOU BE CONCERNED?

Lead poisoning is one of the most serious health threats for children in and around the home. Your children can be poisoned if they get lead in their bodies. Lead may cause learning and behavior problems. It may damage hearing and the nervous system, including the brain.

Where does the lead come from?

Lead is a metal that was used in paint, water pipes, gasoline, pottery, and other places. Even though it is not used as much anymore, it still remains in places it was used.

Lead in paint is one of the biggest threats to young children

It may be in paint on the walls and window sills. It might be in household dust (which may have lead dust from old, worn paint).

It might be in your water from lead water pipes or solder. It may be in the soil outside your home.

It is very important to find out if lead remains in and around your home, and testing can be done at low cost.

How can your child be poisoned by lead? There are many ways. Young children put their hands and everything else in their mouths, so they can eat the dust or chips of lead-based paint without knowing it. Even small bits of paint that you cannot see can come off windows, doors



and walls. This creates dust with lead. Children who crawl on the floor, put toys in their mouths, or play in soil around the home or daycare can be poisoned.

Children with too much lead in their bodies may not look or feel sick. A simple blood test is the only way to know if your child is being exposed to lead. Ask your doctor or health care provider to test your child for lead.

1 in 20 American children have too much lead in their bodies. The rate is even higher in cities

Lead-based paint that is in good condition is not an immediate problem. It may be a risk in the future, though.

Laws have been passed to ban lead in household paint, gasoline and water pipes. However, many older homes may still have lead in them. Finding out if there is lead in your home is the first step in protecting your children's health. The questions on the next page can help.



DO YOU LIVE IN AN OLDER HOME?

- Many older homes have lead-based paint or lead water pipes. Lead paint was banned in 1978. Homes built before 1950 are most likely to have lead.
- Is there cracking, chipping, or flaking paint in your home?
- Are there places where paint is being rubbed, such as on a door or in a window frame? This can make dust with lead in it.
- Has your home been recently remodeled or renovated? Projects may leave dust or paint chips with lead.
- Do you have water pipes made with lead, or pipes joined with lead solder? Water that flows through these pipes may contain lead. Lead pipes are dull gray and scratch easily with a key.
- Is there lead in the soil outside your home? It can get there from paint on the outside of the house, from industry, or from car exhaust from the time when gasoline contained lead. If children play in soil that contains lead, or if the soil is tracked inside the home, children can be poisoned.

CHILDREN UNDER 6 WHO HAVE NOT HAD A TEST FOR LEAD?

- Do you have children under six who have not had a blood test for lead? Young children should be tested for lead. This is especially true if you live in an older home, if your home has recently been remodeled, or if a brother, sister or a playmate has tested high for lead. Ask your doctor to test your children beginning at six months of age, and then every year until age six.
- Have your neighbor's children or playmates ever had a high blood lead test?



WORK WHERE LEAD IS USED?

- Does someone in your home work in a place where lead is used? Some jobs that might create lead dust are: construction, bridge building, sandblasting, ship building, plumbing, battery making and battery recycling, car repair, furniture refinishing, and foundry casting. Workers can carry lead dust into their home on clothing, skin or shoes.

If you answered **YES** to any of these questions, your children may be at risk for lead poisoning. Check out the Action Steps on the next page to find out what you can do to protect your children's health!

THE BLOOD TEST FOR LEAD

- ✓ It only takes a small blood sample to tell if your child has lead poisoning.
- ✓ Ask your health care provider about testing.
- ✓ Lead levels are measured in micrograms per deciliter ($\mu\text{g}/\text{dL}$)
 - If your child's level is 10 $\mu\text{g}/\text{dL}$ or higher, it is too high.
 - You need to find out how lead is getting into their bodies.
- ✓ Your health care provider can help you find out what to do.

**Have your children tested for lead**

- ☐ This test is often free at local health clinics.

Find out if your home has lead

- ☐ You may need to have your home, soil or water tested. Your local health department can tell you how to have your home tested. There are also low-cost lead kits available at hardware stores.
- ☐ Don't try to remove lead-based paint on your own. It should be done by trained experts. Removing lead improperly can make the problem worse! Children and pregnant women should be kept away during a lead removal project.

How to protect your children from lead

- ☐ Wash children's hands and face often with soap and water, especially before they eat. Wash toys at least once a week.
- ☐ Reduce lead-based paint dust with house-keeping. Wipe surfaces, such as window sills and floors, with paper towels, warm water and soap once a week. Rinse well.
- ☐ Never sweep, vacuum or dry dust in a room that has lead dust. You will not remove the harmful dust and can stir it up. This includes porches which were often painted with lead paint.
- ☐ Don't let children chew on, or mouth, window sills. Keep cribs away from window sills and walls.
- ☐ If any remodeling is being done, be sure you find out if changes are being made to something that contains lead-based paint. Never dry scrape or dry sand lead-based paint. Don't try to burn it or torch it. Children and pregnant women should stay away while remodeling takes place. Test dust for lead around the remodeling area afterwards.

If you have lead pipes, or pipes joined with lead solder, you can take steps to reduce the lead in your water

- ☐ Never use hot water for drinking or cooking. Hot water can take more lead out of the pipes.
- ☐ When no water has been used for a few hours or over night, let the COLD water run before you use it. You know it has run long enough when the water changes temperature. Usually it gets colder. This clears out the water that was sitting in the pipes that may have lead.
- ☐ You can have your water tested for lead. Call your local health department.

If someone in your home works with lead, they can bring lead home on their clothes

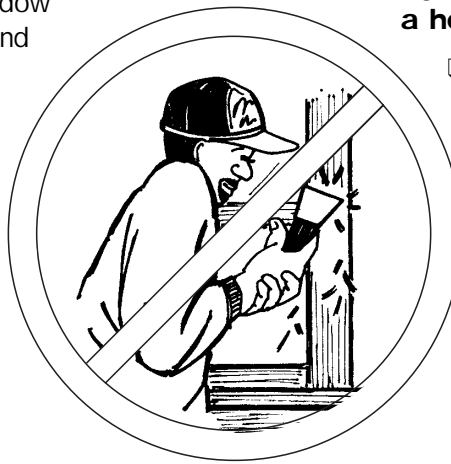
- ☐ Make sure they shower and change clothes and shoes before coming in the house. Wash these clothes separately.

Test your soil

- ☐ Unless you know the soil has been tested for lead, don't let children play in the soil around your home or daycare. Grass and other plants can help keep children away from the soil.

Feed your children a healthy diet

- ☐ Foods with vitamin C, calcium, and iron can help reduce lead poisoning.

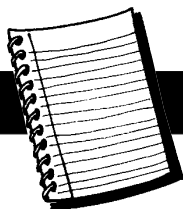




LEAD

WHEN IN DOUBT, CHECK IT OUT

- For blood tests, call your family doctor or public health clinic
- For testing of paint samples and drinking water, call your local health department
- For a packet of materials or questions about lead, call the National Lead Information Center, toll-free, 1-800-424-LEAD
- For information on lead in drinking water, call the EPA Safe Drinking Water Hotline: 1-800-426-4791
- For a *Resident Rights and Responsibilities Brochure* contact HUD at 1-800-HUDS-FHA <http://www.hud.gov/fha/fharent.html>
- Contact Healthy Indoor Air for America's Homes: (406) 994-3451 <http://www.montana.edu/wwwcxair/>
- For more information on Lead In and Around the Home, see *Home*A*Syst*. The Home*A*Syst handbook gives more details about this and other healthy home topics. (608) 262-0024 <http://www.uwex.edu/homeasyst>



NOTES



LEAD

This chapter was adapted from "Lead In and Around the Home: Identifying and Managing It's Sources," by Karen Filchak, University of Connecticut Cooperative Extension. In *Home*A*Syst*, An Environmental Risk-Assessment Guide for the Home, ©1997 Regents of the University of Wisconsin System. All rights reserved.

DRINKING WATER

SHOULD YOU BE CONCERNED?

Every day Americans drink more than one billion glasses of water! We also depend on water in our homes to clean, cook, fix baby food and formula, and bathe. If you are like most people, you trust that your water is safe. This is mostly true. Public drinking water in the US is safe for most healthy people. If you have a well or other private water supply, it's up to you to keep your drinking water safe. Whether your water comes from a public or private source, you can take steps to make sure it's safe for you and your children.

There are times when your home water supply may not be safe. Using unsafe water to drink or prepare food can make you sick. Children may have more problems than adults:

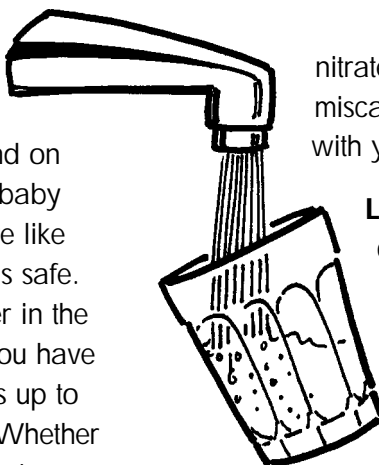
- For their size, children drink more liquid than adults.
- Children's illnesses may be more serious because their immune systems are still developing.
- Because they are still growing, children's bodies can be more harmed by chemicals.

What may be in drinking water that is not safe?

Bacteria and viruses can cause diseases.

Drinking water with these germs may cause upset stomachs, diarrhea, or more serious illnesses. It can be worse for children, pregnant women, and sick or older people. Just one drink of water with these germs can make you sick.

Nitrate gets into water from animal and human waste, and from fertilizer. Too much nitrate in your drinking water can cause "blue baby" syndrome in infants under 6 months old. Some experts believe



nitrate may also result in birth defects and miscarriages. Baby food or formula made with your drinking water needs to be safe.

Lead and copper are metals that can get into water from your pipes. Too much lead can cause children to have learning and behavior problems, and other illnesses. Babies who get too much copper can have colic and spit up their formula more than normal. Older children and adults may have upset stomachs or diarrhea from copper.

Other harmful chemicals can get into drinking water. Pesticides may get into your water supply by washing off lawns and fields or leaking from storage containers. Gas or oil can seep into the ground and get into drinking water. Even very small amounts of some chemicals can cause problems, such as damage to kidneys, liver, or other organs. Some cause cancer and others can cause problems if you are pregnant.

Answer the questions on the next pages to find out if your water is safe and what you can do to reduce risks to your family.



Don't dump motor oil or other things down storm drains.

Does your water come from a public water supply, such as the water company in your city or town? Or do you have a private water supply, such as a well or spring? The questions to ask yourself are different depending on where your water comes from.

PUBLIC WATER SUPPLIES

Before reaching your house, water from a public water supply is tested for over 80 different kinds of chemicals. If they find problems, the company has to treat the water to make it safe or tell you that the water is unsafe to drink.

Every year, water companies give the results of these water tests to customers. They mail reports or print them in a local newspaper. You can also call your water company to ask what chemicals are found in the water and how they treat it to make it safe.

Public water can become unsafe after it gets to your home from lead or copper pipes. What kind of pipes do you have?

Lead pipes: If your house was built before 1988, it may have lead water pipes or pipes joined with lead solder. Lead pipes are dull gray and scratch easily with a key.

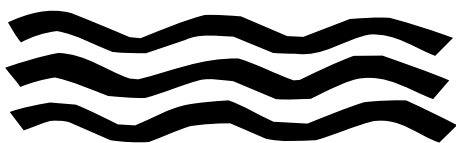
Copper pipes: You may have copper pipes. These are reddish-brown in color.

ACTION



WATER

STEPS



If you have lead or copper pipes:

- ☐ Call your local health department to find out how to test your water.
- ☐ When you haven't used your water for a while (like when you wake up in the morning or when you get home from work), you need to clear out the pipes. Let the cold water run until you feel the temperature change, before you drink it or use it for cooking. This will flush out water that has sat in the pipes and possibly dissolved lead or copper.
- ☐ Never use hot water from the tap for cooking, drinking, or making formula because the heat helps dissolve the metals faster. Use cold water and warm it on the stove.

Help protect water supplies

You may not think about it, but the public water supply is local. It may be the groundwater that is under your house. It may be the river or lake nearby. Your actions can help keep it clean or make it polluted.

- ☐ If you use poisons to kill bugs or weeds, do what the label says. Never use more than the label says.
- ☐ Pay attention to where you store chemicals (bleach, paint, oven cleaner) outside. Make sure that the bottles are closed tightly and have a label that says what is inside.
- ☐ Do not throw chemicals in the garbage or down the drain. Read the label for disposal instructions. Give them to someone who will use them or call your local health department to find out how to get rid of them.
- ☐ Clean up pet waste. Don't leave it on the ground where rain can wash the germs into rivers and lakes. It's best to flush it down the toilet.

PRIVATE WATER SUPPLIES

You may have a private water supply, such as a well, for your drinking water. Your well is your responsibility. You need to make sure it is clean and safe.

TEST YOUR WELL WATER

HAS IT BEEN MORE THAN TWO YEARS SINCE YOUR WATER WAS TESTED?

You cannot see, smell, or taste most problems so you need to have your water tested at a laboratory. Well water is usually tested for bacteria and nitrate.

You may want to have your water tested more often, or for other pollutants, like pesticides, if you have had problems in the past. Call your local health department to find out how to have your water tested.

TAKE CARE OF YOUR WELL

You need to take care of your well, especially if it is old.

DO YOU KNOW WHERE YOUR WELL IS?

Find your well. Is it uphill from animal pens, manure, pet waste, septic systems, dumps and places where chemicals are stored?

WHAT KIND OF WELL DO YOU HAVE?

- A dug or bored well usually has a big hole, two feet across or more, and is less than 50 feet deep. These wells may be less safe because chemicals and bacteria can easily get into the water through the top and sides
- A drilled well usually has a narrow hole (4-10 inches around) and is deeper, sometimes hundreds of feet.
- A driven point well (sandpoint) is 1-2 inches around and may not be deep.

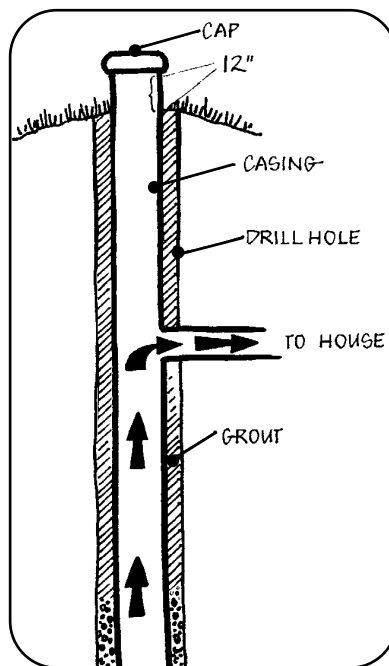
DO YOU KNOW HOW OLD YOUR WELL IS?

If it is more than 20 years old, it may need a checkup. You may need to test your water more often.

IS YOUR WELL IN GOOD SHAPE?

You want to keep things from the surface out of your water supply.

- The well casing needs to stick up above the ground, up to 12 inches but local rules vary. Your health department has the information.
- There should be no gaps or spaces between the well casing and the material or soil around it.
- Make sure the casing does not have holes or cracks.
- Does the well cap fit tightly? Are any openings or vents covered by a screen?
- Be sure there is not a low area near the well where rainwater can collect. Rainwater carrying pollutants can seep into well water.
- Don't keep gas, oil, weed killer or other chemicals in your well house.



DO YOU HAVE UNUSED WELLS ON YOUR PROPERTY?

Unused wells that have not been properly filled and capped can let pollution into groundwater and make your drinking water unsafe. If you have an unused well, ask the health department how to seal it.

PROTECT YOUR WATER SUPPLY

DO YOU USE DEVICES ON THE ENDS OF HOSES to keep water from flowing back into your water supply? These are called back flow prevention devices. They help keep pollutants from washing back into the hose and into your drinking water supply.



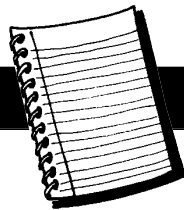
WHAT KIND OF PIPES DO YOU HAVE? See the Action Steps on page 13 to find out how to make sure harmful metals are not getting into your drinking water from your pipes.



WATER

WHEN IN DOUBT, CHECK IT OUT

- Call your local water company
- Call your local Cooperative Extension office
- Call your local health department
- Call EPA's Safe Drinking Water Hotline toll-free at (800) 426-4791
- Contact American Water Works Association 202-628-8303
<http://www.awwa.org/bluethumb>
- The Home*A*Syst handbook gives more details about this and other healthy home topics. (608) 262-0024
<http://www.uwex.edu/homeasyst>



NOTES



WATER

This chapter was adapted from "Drinking Water Well Management," by Bill McGowan, University of Delaware Cooperative Extension. In *Home*A*Syst, An Environmental Risk-Assessment Guide for the Home*, ©1997 Regents of the University of Wisconsin System. All rights reserved, and "Your Guide to Public Water," by Alyson McCann, University of Rhode Island Cooperative Extension, February 2000, Rhode Island Home*A*Syst program.

HAZARDOUS HOUSEHOLD PRODUCTS

SHOULD YOU BE CONCERNED?

Do you have these products in your house: bleach, rat poison, mothballs, charcoal lighter fluid, oven cleaner, batteries, mercury thermometers, gas, oil, wood polish, toilet and drain cleaners, shoe polish, bug spray?

Some household products like these are dangerous for your children! Household products are called *hazardous* if they can cause harm when not used properly. Not every product is hazardous and some are more dangerous than others.

In 1995, almost 20,000 children were exposed to or poisoned by household chlorine bleach

You can use most products safely if you follow the directions on the label. Doing things that are not on the label can be risky for your health and your family's.

People get in trouble by using too much of a product, or by mixing two products together, for example.

Children can be poisoned if products are stored or thrown away unsafely. Children's bodies are small, so even a little bit of some chemicals can cause big problems.



Eating or drinking a hazardous product is dangerous, of course. Also, just touching or breathing some products—even a very small amount of them—can be harmful. They can

burn your skin or eyes just by touching them. They can make you sick if they get into your body

through the skin or by breathing in dust or fumes.

Sometimes a reaction tells you right away if you or your child has contacted a hazardous product. You may feel sick to your stomach or dizzy. Your skin may itch or burn. Your eyes may water or hurt.

Other problems don't show up until later, like cancer or harm to your lungs. Also, being exposed to chemicals can affect a child's growing body.

You can protect your children and yourself from illness and injury. Use hazardous products safely. Store them carefully. Dispose of them properly.

The following pages will help you learn more!

QUESTIONS TO ASK



PRODUCTS

STORE SAFELY

DO YOU STORE HAZARDOUS HOUSEHOLD PRODUCTS SAFELY?

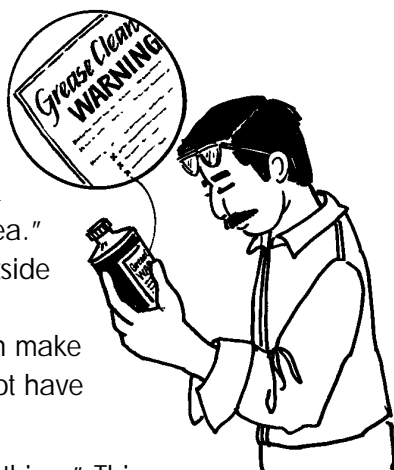
- Keep them away from children. A locked, secure place out of the reach of children is best.
- Store them in the package, can or bottle they came in. Never put them in another container! This prevents accidental poisoning and keeps the label instructions with the product.

- Keep containers and packages dry. Close them tightly. Set containers inside a plastic bucket in case of leaks. Store products at least 150 feet away from your well, cistern or water pump. This will protect your water supply and your health.
- Keep products away from heat, sparks or fire.
- Store batteries and flammable chemicals like gasoline in the shade, away from direct sunlight.

USE SAFELY

DO YOU USE HAZARDOUS HOUSEHOLD PRODUCTS SAFELY?

- Read the label. That is one of the most important steps in using products.
- Look for words like CAUTION, WARNING, FLAMMABLE, HARMFUL, DANGER, POISON. These can tell you a product is hazardous. If you see these words on a label, be extra careful.
- Look for special instructions on the label such as: "work in well ventilated area." This means work outside or with the windows open. The fumes can make you sick if you do not have enough fresh air.
- Wear "protective clothing." This means wear goggles, safety glasses, gloves, long sleeves, or other coverings. Protective clothing will prevent burns or keep chemicals from going into your body through the skin.



- Never mix products unless the label says it is safe to do it. You can make a deadly gas by mixing the wrong things together. For example, never mix products containing chlorine bleach with products containing ammonia.
- Keep children away from the area while you use these products.
- Always replace the cap and put the product away immediately after use.
- Never leave the product or container where children can see it or reach it.
- Don't eat or smoke when using hazardous products.
- Be ready in case there's an accident: Put the Poison Control Center telephone number where you can find it quickly in case of an emergency. Tape it to the wall by your kitchen phone, for example.
- Buy "Syrup of Ipecac" at your local drugstore and keep it handy. This medicine makes a person throw up. But only use it when a doctor or Poison Control Center tells you to. Sometimes throwing up makes the poisoning worse.

USE LESS

CAN YOU CUT DOWN ON THE HAZARDOUS PRODUCTS IN YOUR HOUSE?

- Buy only what you need, so you don't have extras.
- Prevent or reduce pest problems so you don't need chemicals to kill them. Wash dishes and wipe counters often. Keep the garbage area tidy.



- If you're pregnant, don't use hazardous products if something else will do the job.
- Think about using tools or products known to be safe: use a plunger to unclog sinks instead of chemicals. Clean with baking soda (for scrubbing) or vinegar (for cutting grease).



IN CASE OF EMERGENCY

Find the telephone number for your local Poison Control Center. It's usually listed on the inside front cover of your telephone book. Write the number down and put it next to the phone.

SAFE DISPOSAL

HOW DO YOU GET RID OF LEFTOVER PRODUCTS?

- Share the extra with someone who will use it up.
- Take leftovers to a community hazardous waste collection point. Ask your local health department where this is.
- Some products—like pesticides—are especially hazardous. You will even need to be careful how you dispose of the container. The label will tell you what to do.
- Never dump or burn hazardous products on your property. Dumping or burning them near a water supply is especially dangerous.
- Never burn hazardous wastes in a barrel or stove. Burning may release toxic gases and produce hazardous ash and smoke, and, it's illegal in many states.
- Recycle used motor oil or antifreeze. Many communities have places for you to do this.
- Mercury is a threat to health. Some products that have mercury in them are fluorescent bulbs, thermometers, thermostats, and blood pressure monitors. Call your city trash department or local public health department to find out where you can recycle products with mercury.



ACTION



PRODUCTS

STEPS

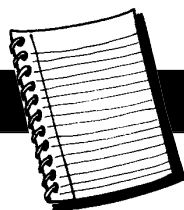
Mark the steps you can take to protect your family's health!

- ☐ Buy only what I need to do the job.
- ☐ Use products known to be safe when possible.
- ☐ Read and follow directions on product labels—always!
- ☐ Post the Poison Control Center telephone number next to the phone.
- ☐ Never mix two products together unless I know it is safe.
- ☐ Keep all hazardous products, including bleach, in a cabinet out of reach of children.
- ☐ Buy products in childproof containers.
- ☐ Keep hazardous products in their original containers.
- ☐ Give my leftover products to someone else to use.
- ☐ Find out about my community's hazardous waste collection points.
- ☐ Recycle products that I can—oil, antifreeze, products with mercury.
- ☐ Never burn or dump leftover products or containers on the ground.



WHEN IN DOUBT, CHECK IT OUT

- Call your local Poison Control Center
- Call your local Cooperative Extension office
- Call your local health department
- Call the Consumer Products Safety Commission: 1-800-638-2772
<http://www.cpsc.gov/consumer.htm>
- Contact Healthy Indoor Air for America's Homes: (406) 994-3451
<http://www.montana.edu/wwwcxair/>
- The Home*A*Syst handbook gives more details about this and other healthy home topics. (608) 262-0024
<http://www.uwex.edu/homeasyst>



NOTES



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PESTICIDES

SHOULD YOU BE CONCERNED?

Many families are bugged by pests. Cockroaches, flies, rats, and mice carry disease and can get into our food.

Roaches and house dust mites can make allergies and asthma worse. Fleas and ticks riding into the house on pets or clothing can carry disease. The bites of rats and certain spiders can make children seriously ill.

Pesticides are things like bug spray, pet flea collars, rat poison, bleach, and garden weed killer that can

be used to prevent and kill pests. We often act like pesticides are safe, but they can be a danger if used incorrectly. Some may cause poisoning, birth defects, nerve damage, and even cancer.

They can make allergies or asthma

worse. Breathing fumes or dust from pesticide powders and sprays can be harmful. Touching a floor where pesticides were used can also be a danger.

Children are especially at risk.

When they crawl and play on floors and lawns, they can come in contact with pesticides used there. Young children put things in their mouths, like hands and toys. These may have touched pesticide on the floor or grass. Children may get more of the small amounts of pesticides on foods than adults because they eat more of some foods.

The biggest danger is poisoning.

Children can be accidentally poisoned if they play with, eat or drink pesticides that have not been stored properly.

Poisoned by pesticides: don't let this happen to your child.

A five-year-old boy drinks from a bottle of bleach that he found under the bathroom sink.

A three-year-old girl tries to spray her hair the way mommy does, but sprays an aerosol disinfectant in her eyes instead.

A baby who has just begun to crawl eats green pebbles from behind the sofa. They look like candy but are really rat poison.

The good news is there are lots of things you can do to protect your family's health and safety! Ask yourself the questions on the following page to see if pesticides may be a threat in your home. Safe pesticide use depends on YOU!

Almost
one-half of houses
with a child under
5 had pesticides
stored within
reach of children.



WHY DO YOU HAVE PESTS?

- Does your home have loose or torn screens or broken windows?
- Are there gaps or holes in the building that let pests in?
- Are counters and floors often dirty? Do dishes go unwashed?
- Is there spilled food anywhere in your home?
- Do you keep your garbage where ants, roaches, rats, mice, or other animals can get into it?
- Does your plumbing or roof leak?
- Do you store food in containers or boxes that don't have covers?

DO YOU USE PESTICIDES PROPERLY?

- Do you (or a pest control company) ever use air borne pesticides like flea bombs or roach sprays instead of baits inside the home? Bombs and sprays spread pesticides over a larger area, making exposure more likely.
- Do you use flea collars, sprays, or powder on your pets? These contain pesticides that may be harmful to people.
- Do you use pesticides without reading the label?
- Are children or pets in the room when you use pesticides?
- Do you eat, drink or smoke while using a pesticide?
- Do you put bug repellent on your children?
- Do you serve fruits and vegetables without washing them thoroughly?



HOW DO YOU STORE & DISPOSE OF PESTICIDES?

- Do you ever store pesticides in different containers from the ones they came in?
- Do you often have extra, leftover pesticides around the house?
- Do you store pesticides where children can reach them?
- Do you store pesticides near food?
- Do you throw empty pesticide containers away without reading the label?
- Do you put empty pesticide containers out where children can reach them?

ACTIONS STEPS

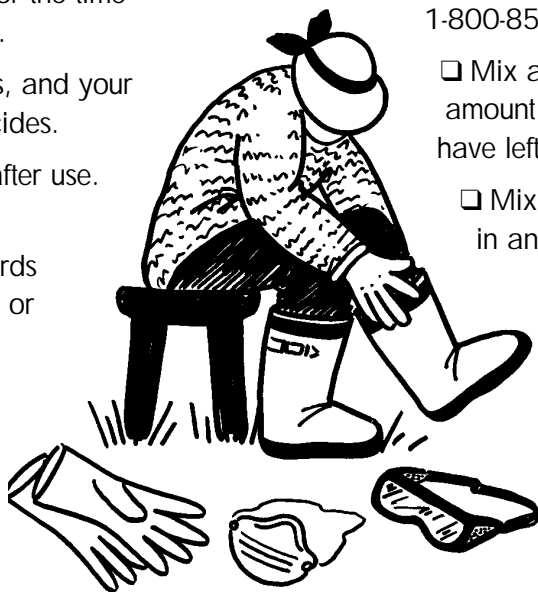
PESTICIDES

KEEP A CLEAN HOUSE

- ☐ Wash children's hands, bottles, pacifiers, and toys often. Regularly clean floors, window sills, and other surfaces.
- ☐ Keep a tight lid on trash cans and empty them often.
- ☐ Store food in tightly sealed containers.
- ☐ Eat at the table. Don't walk around the house with food.
- ☐ Clean up spills and crumbs right away.
- ☐ Clean your dirty dishes right away.
- ☐ Clean your house thoroughly after treating for roaches to reduce roach allergies.
- ☐ Pests need water. Keep them from getting it by fixing leaks and not leaving dish water in the sink overnight.
- ☐ Control fleas by washing bedding often, shampooing pets, vacuuming floors, and using flea combs and traps.
- ☐ Get rid of stacks of newspaper, papers, bags, and cardboard boxes.

USE PESTICIDES SAFELY

- ☐ Read the label and follow the instructions. Use only the amount directed and for the purpose listed.
- ☐ Place all pesticides, including baits, out of reach of children.
- ☐ When applying a pesticide, keep children away until it has dried or for the time recommended on the label.
- ☐ Protect your skin, your eyes, and your lungs while applying pesticides.
- ☐ Always wash your hands after use.
- ☐ Look for signal words. All pesticide labels include words such as Caution, Warning, or Danger to warn you about its hazards.
- ☐ Never smoke, eat, or drink while using a pesticide.
- ☐ Wash clothing you wore to apply a pesticide in a separate load from other laundry.
- ☐ If you have questions about using a pesticide, call the company that made it. An 800 number is usually on the label.
You can also call the National Pesticide Telecommunications Network at 1-800-858-7378.
- ☐ Mix and apply only the amount you need so you don't have leftovers.
- ☐ Mix pesticides outdoors or in an area with plenty of fresh air.



IN CASE OF EMERGENCY

Find the telephone number for your local Poison Control Center. It's usually listed on the inside front cover of your telephone book. Write the number down and put it next to the phone.

STORING & DISPOSING OF PESTICIDES

- Store pesticides where children and pets can't reach them or in a locked cabinet.
- Store pesticides only in the container they came in. NEVER put them in a soft drink bottle or any other kind of container.
- Follow the directions on the label for how to throw away pesticides properly.
- Never use an empty pesticide container for something else.

TIPS FOR PREPARING FOOD

- ✓ Wash and scrub all fruits and vegetables under running water.
- ✓ After washing, peel fruits and vegetables when possible.
- ✓ Throw away the outer leaves of leafy vegetables.
- ✓ Trim fat from meat and skin from poultry and fish—some pesticides collect in fat.
- ✓ Eat a variety of foods from a variety of sources.

TIPS FOR YOUR LAWN & GARDEN

- ✓ Use lawn seed and plants that are meant to grow well in your area and resist disease.
- ✓ Decide if you can tolerate a few weeds or insects.
- ✓ Use your hands. Weeds can be controlled by hand pulling or hoeing.
- ✓ Clean up dead leaves and debris to remove homes for pests.
- ✓ Make sure you know the pest or problem.

TIPS USING BUG REPELLENT

When putting bug repellent on children, read all directions first. Do not apply over cuts or broken skin. Do not apply to eyes, mouth, hands, or directly on the face. Use just enough to cover skin or clothing. Don't use it under clothing.

KEEP PESTS OUT OF YOUR HOME

- Seal cracks and crevices where pests can enter the home.
- Check things like bags and boxes for roaches before bringing them into the house.
- Teach your children not to share combs, hats, or coats at school or daycare.



- ✓ Use pesticides only if there is a problem.
- ✓ Use the least toxic chemical you can find for the job.



**Your local Cooperative Extension office
can help with lawn and garden care.**



WHEN IN DOUBT, CHECK IT OUT

- EPA Office of Pesticide Programs
1-800-535-PEST
<http://www.epa.gov/pesticides/consumer.htm>
- National Pesticide Telecommunications
Network 1-800-858-7378
<http://ace.orst.edu/info/nptn/>
- Agency for Toxic Substances and Disease
Registry (ATSDR)
Methyl Parathion hotline: 800-447-1544
- The Home*A*Syst handbook gives more
details about this and other healthy home
topics. (608) 262-0024
<http://www.uwex.edu/homeasyst>
- Food and Drug Administration Food
Information Line 1-800-490-9198
You can order these publications:
Help! It's A Roach:
A Roach Prevention Activity Book
*Citizen's Guide to Pest Control and
Pesticide Safety*
*10 Tips to Protect Your Family From
Pesticide and Lead Poisoning*
Pesticides and Child Safety



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